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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,494	08/19/2003	Alkinoos Hector Vayanos	020688	7416

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER	
ORGAD, EDAN	

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,494	VAYANOS ET AL.	
	Examiner	Art Unit	
	Edan Orgad	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 August 2003* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/15/04, 6/28/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (Kim, European Patent Application EP 1,199,834).

Regarding claims 1 and 12, Kim teaches of a method and apparatus of communications, comprising: transmitting a first signal to a remote location at a first energy level (Figures 1 -3; tables 1 and 2; and paragraphs 0022 -0026); determining a target transmission energy level as a function of a target quality parameter at the remote location (Figures 1 -3; tables 1 and 2 and paragraphs 0027-0034); computing a second energy level as a function of the target transmission energy level and the first energy level (Figures 1 -3; tables 1 and 2 and paragraphs 0027 - 0034); and transmitting a second signal to the remote location at the second energy level (Figures 1 -3; tables 1 and 2 and paragraphs 0027 - 0034).

Regarding claims 2 and 13, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the determination of the target transmission energy level is a function of the first and second signals (Figures 1 -3; tables 1 and 2 and paragraphs 0027 - 0042).

Regarding claims 3 and 14, Kim teaches all the claimed limitations as recited in claimed limitations as recited in claims 2 and 12. Kim further teaches of wherein the first and second

signals each comprises a plurality of symbols (paragraphs 0035 - 0042), and wherein the determination of the target transmission energy level is a function of the total number of symbols in the first and second signals (paragraphs 0035 - 0042).

Regarding claims 4 and 15, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the second energy level is further adjusted as a function of expected losses at the remote location related to decoding the first and second signals jointly (Figures 1 -3; tables 1 and 2 and paragraphs 0035 - 0042).

Regarding claims 5 and 16, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the second energy level is further adjusted as a function of expected losses at the remote location relating to de-mapping the second signal (Figures 1 -3; tables 1 and 2 and paragraphs 0035 - 0042).

Regarding claims 6 and 17, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the first signal comprises a first subpacket from a data packet (Figures 1 -3; tables 1 and 2 and paragraphs 0023 -0034), and the second signal comprises a second subpacket from the same data packet (Figures 1 -3; tables 1 and 2 and paragraphs 0023 -0034), and wherein the determination of the target transmission energy level is a function of a coding rate of the combined first and second subpackets (Figures 1 -3; tables 1 and 2 and paragraphs 0023 -0034).

Regarding claims 7 and 18, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the first signal is transmitted at a first coding rate (Figures 1 -3; tables 1 and 2 and paragraphs 0023 -0034), and the second signal is transmitted at a second coding rate higher than the first coding rate (Figures 1 -3; tables 1 and 2 and paragraphs.

0023 -0034).

Regarding claims 8 and 19, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the computation of the second energy level is further a function of feedback from the remote location relating to wireless channel quality (paragraphs 0023 -0034).

Regarding claims 9 and 20, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the computation of the second energy level is a function of the target transmission energy level and the first energy level adjusted by expected losses at the remote location relating to de-mapping the first signal (Figures 1 -3; tables 1 and 2 and paragraphs 0023 -0034).

Regarding claims 10 and 21, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the computation of the second energy level comprises subtracting the adjusted first energy level from the target transmission energy level (Figures 1 -3; tables 1 and 2 and paragraphs 0035- 0042).

Regarding claims 11 and 22, Kim teaches all the claimed limitations as recited in claims 1 and 12. Kim further teaches of wherein the quality parameter comprises an error rate at the remote location (Figures 1 -3;tables 1 and 2 and paragraphs 0023 -0034).

Regarding claim 23, Kim teaches of a communications apparatus, comprising: means for transmitting to a remote location a first signal at a first energy level followed by a second signal at a second energy level (Figures 1 -3; tables 1 and 2 and paragraphs 0022- 0026); determining means for determining a target transmission energy level as a function of a target quality parameter at the remote location (Figures 1 -3; tables 1 and 2 and paragraphs 0023 - 0042); and

means for computing the second energy level as a function of the target transmission energy level and the first energy level (Figures 1 -3; tables 1 and 2 and paragraphs 0023 - 0042).

Regarding claim 24, Kim teaches all the claimed limitations as recited in claim 23. Kim further teaches of wherein the determination of the target transmission energy level by the determining means is further a function of the first and second signals (Figures 1 -3; tables 1 and 2 and paragraphs 0023 - 0034).

Regarding claim 25, Kim teaches all the claimed limitations as recited in claim 24. Kim further teaches of wherein the first and second signals each comprises a plurality of symbols, and wherein the determination of the target transmission energy level by the determining means is further a function of the total number of symbols in the first and second signals (Figures 1 - 3; and tables 1 and 2 and paragraphs 0023 - 0034).

Regarding claim 26, Kim teaches all the claimed limitations as recited in claim 23. Kim further teaches of wherein the first signal comprises a first subpacket from a data packet, (Figures 1 - 3; and tables 1 and 2 and paragraphs 0023 - 0034) and the second signal comprises a second subpacket from the same data packet (Figures 1 - 3; and tables 1 and 2 and paragraphs 0023 - 0034), and wherein the determination of the target transmission energy level by the determining means is further a function of a coding rate of the combined first and second subpackets (Figures 1 - 3; and tables 1 and 2 and paragraphs 0023 - 0034).

Regarding claim 27, Kim teaches all the claimed limitations as recited in claim 23. Kim further teaches of comprising means for encoding the first signal at a first coding rate and the second signal at a second coding rate higher than the first coding rate (Figures 1 - 3; and tables 1 and 2 and paragraphs 0023 - 0034).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 571-272-7884. The examiner can normally be reached on 8:00AM to 5:30PM with every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/11/05

EDAN ORGAD
PATENT EXAMINER/TELECOMM.